

CLAIMS

In the Claims

Claim 1. (Currently Amended) A vehicle mirror assembly comprising:
a mirror frame;
a rotor rotatably mounted with respect to the mirror frame, said rotor being configured to rotate without touching the mirror frame;
a member for rotating the rotor with respect to the mirror frame;
a connection member operably interposed between the rotor and the mirror frame allowing pivoting of the rotor with respect to the mirror frame; and
a mirror, having a reflective surface, mounted with respect to the rotor so that the surface remains substantially parallel to the plane in which the rotor rotates, said rotor being operatively connected to said mirror such that the rotor stabilizes the mirror against tilting vibrational movement by said rotor rotating within said mirror frame without directly contacting said mirror frame or mirror.
~~whereby the rotor stabilises the mirror against tilting vibrational movement.~~

Claim 2. (Previously Presented) A vehicle mirror assembly as claimed in claim 1, wherein the connection member is arranged and constructed such that the angle of the mirror surface, with respect to the mirror frame, can be adjusted.

Claim 3. (Previously Presented) A vehicle mirror assembly as claimed in claim 2 further comprising a support portion interposed between the mirror frame and the rotor, the support portion supporting the rotor.

Claim 4. (Previously Presented) A vehicle mirror assembly as claimed in claim 3, wherein the connection member comprises:
a pivot mounting interposed between the mirror frame and the support portion; and
at least two legs operably interposed between the mirror frame and the support portion, each leg comprising an actuator for adjusting the no-load length of the leg and a vibration absorber connected in series to the actuator,

wherein the actuator enables adjustment of the timed-averaged orientation of the mirror with respect to the mirror frame and the vibration absorber reduce the transmission of vibration forces from the mirror frame to the support portion.

Claim 5. (Previously Presented) A vehicle mirror assembly as claimed in claim 4, wherein the vibration absorbers each comprises a spring member and a damper member operable in parallel.

Claim 6. (Previously Presented) A vehicle mirror assembly as claimed in claim 1, wherein the rotor is a substantially disc-shaped flywheel.

Claim 7. (Original) A vehicle mirror assembly as claimed in claim 6, wherein the flywheel has a diameter of at least two thirds of the smallest bisector of the mirror surface.

Claim 8. (Previously Presented) A vehicle mirror assembly as claimed in claim 1, wherein the member for rotating the rotor is air driven.

Claim 9. (Previously Presented) A vehicle mirror assembly as claimed in claim 8, wherein the member for rotating comprises vanes mounted to the rotor and an air passage arranged and constructed so as to direct air through the vanes.

Claim 10. (Previously Presented) A vehicle mirror assembly as claimed in claim 1, wherein the member for rotating the rotor comprises an electric motor.

Claim 11. (Previously Presented) A vehicle mirror assembly as claimed in claim 1, wherein the mirror frame comprises a case substantially encapsulating the support portion, rotor and mirror from behind the mirror surface.

Claim 12. (Currently Amended) A vehicle external rear vision mirror assembly comprising:

- a support arm having a proximal and a distal end, the distal end for attaching to a vehicle;

- a mirror frame mounted on or integral with the proximal end of the support arm;

- a support portion connected to the mirror frame;

- a rotor rotatably mounted with respect to the support portion, said rotor being configured to rotate without touching said mirror frame;

- a member for rotating the rotor;

- a mirror mounted to the support portion, the mirror having a reflective surface orientated substantially normal to the rotational axis of the rotor; and

- a connection member connecting the support portion to the mirror frame, the connection member arranged and constructed such that the angle of the support portion, with respect to the mirror frame, can be adjusted, whereby the rotor stabilizes the mirror against tilting vibrational movement said rotor being operatively connected to said mirror such that the rotor stabilizes the mirror against tilting vibrational movement by said rotor rotating within said mirror frame without directly contacting said mirror frame or mirror.

Claim 13. (Previously Presented) A mirror assembly as claimed in claim 1 wherein the connection member comprised:

- a pivot mounting interposed between the mirror frame and the support portion; and

- at least two legs operable interposed between the mirror frame and the support portion, each leg comprising an actuator for adjusting the no-load length of the leg and a vibration absorber connected in series to the actuator,

wherein the actuator enables adjustment of the time-averaged orientation of the mirror with respect to the mirror frame and the vibration absorbers reduce the transmission of vibration forces from the mirror frame to the support portion.

Claim 14. (Previously Presented) A mirror assembly as claimed in claim 13 wherein the vibration absorbers each comprises a spring member and a damper member operable in parallel.

Claim 15. (Previously Presented) A mirror assembly as claimed in claim 12, wherein the rotor is a substantially disc shaped flywheel.

Claim 16. (Original) A vehicle mirror assembly as claimed in claim 15, wherein the flywheel has a diameter of at least two thirds of the smallest bisector of the mirror surface.

Claim 17. (Previously Presented) A vehicle mirror assembly as claimed in claim 12, wherein the member for rotating the rotor is air driven.

Claim 18. (Previously Presented) A vehicle mirror assembly as claimed in claim 17, wherein the member for rotating comprises vanes mounted to the rotor and an air passage arranged and constructed so as to direct air through the vanes.

Claim 19. (Previously Presented) A vehicle mirror assembly as claimed in claim 12, wherein the member for rotating the rotor comprises an electric motor.

Claim 20. (Previously Presented) A vehicle mirror assembly as claimed in claim 12, wherein the mirror frame comprises a case substantially encapsulating the support portion, rotor and mirror from behind the mirror surface.

Claim 21. (Currently Amended) A vehicle external rear vision mirror assembly comprising:

- a support arm having a proximal and a distal end, the distal end for attaching to a vehicle;

- a mirror frame mounted on or integral with the proximal end of the support arm

- a support portion connected to the mirror frame;

- a rotor rotatably mounted with respect to the support portion, said rotor being configured to rotate without touching said mirror frame;

- a member for rotating the rotor;

- a mirror mounted directly to, or integral with the rotor, the mirror having a reflective surface orientated substantially normal to the rotational axis of the rotor; and

- a connection member connecting the support portion to the mirror frame, the connection member arranged and constructed such that the angle of the support portion, with respect to the mirror frame, can be adjusted,

whereby the rotor stabilized the mirror against tilting vibrational movement said rotor being operatively connected to said mirror such that the rotor stabilizes the mirror against tilting vibrational movement by said rotor rotating within said mirror frame without directly contacting said mirror frame or mirror.

Claim 22. (Previously Presented) A mirror assembly as claimed in claim 21 wherein the connection member comprises:

a pivot coupling interposed between the mirror frame and the support portion; and
at least two legs operably interposed between the mirror frame and the support portion, each leg comprising an actuator for adjusting the no-load length of the leg and a vibration absorber connected in series to the actuator,

wherein the actuator enables adjustment of the time-averaged orientation of the mirror with respect to the mirror frame and the vibration absorbers reduce the transmission of vibration forces from the mirror frame to the support portion.

Claim 23. (Previously Presented) A mirror assembly as claimed in claim 22 wherein the vibration absorber each comprises a spring member and a damper member operable in parallel.

Claim 24. (Previously Presented) A mirror assembly as claimed in claim 21 wherein the rotor is a substantially disc shaped flywheel.

Claim 25. (Original) A vehicle mirror assembly as claimed in claim 24, wherein the flywheel has a diameter of at least two thirds of the smallest bisector of the mirror surface.

Claim 26. (Previously Presented) A vehicle mirror assembly as claimed in claim 21, wherein the member for rotating the rotor is air driven.

Claim 27. (Previously Presented) A vehicle mirror assembly as claimed in claim 26, wherein the member for rotating comprises vanes mounted to the rotor and an air passage arranged and constructed so as to direct air through the vanes.

Claim 28. (Previously Presented) A vehicle mirror assembly as claimed in claim 21, wherein the member for rotating the rotor comprises and electric motor.

Claim 29. (Previously Presented) A vehicle mirror assembly as claimed in claim 21, wherein the mirror frame comprises a case substantially encapsulating the support portion, rotor and mirror from behind the mirror surface.

Claim 30. (Previously Presented) A mirror assembly as claimed in claim 21 wherein the rotor is eccentrically mounted so that its rotation causes lateral vibration, whereby the vibration reduced the adhesion of water droplets to the mirror surface.